

## **REMARKS**

Claims 1 - 16 and 47 are pending in the application. Claims 1 - 16 and 47 have been rejected. Claim 1 and 17-47 have been cancelled. Claim 12 has been amended. Claim 48 has been added.

Claims 9 and 12 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 9 and 12 have been amended to address this rejection.

Claims 2-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Feldman in view of Hendrick, et al. "Production/Operations Management," Richard D. Irwin, Inc., 1985, Chapter 11, pages 226-244 (Hendrick).

The present invention generally relates to identifying potential risk due to potential disruptions in material supply to a manufacturing facility. One aspect of the invention is the appreciation that disruptions in material supply can occur from sub-components that are combined to provide components. Identifying risks associated with these sub-components can enable determining potential disruptions in material supply that would otherwise not be identified. So for example, if there were a potential disruption due to resistors that are needed to fabricate a printed circuit board, where the printed circuit board is the component being supplied to a manufacturing facility, to risk associated with the resistor would affect supply of the printed circuit board.

More specifically, the present invention, as set forth by independent claim 2, relates to a computer implemented method of identifying potential risk due to potential disruptions in material supply to a manufacturing facility. The method includes determining a set of components for an assembled product, storing the set of components, determining a set of sub-components for the set of components; storing the set of sub-components, combining the set of components and the set of sub-components, and identifying potential risk due to potential disruptions in material supply of a component from the set components and the set of sub-components. The potential risk due to potential disruptions in continuity of material supply, including risks associated with supplier power risk, geopolitical risk, capital cycle risk and innovation risk.

The present invention, as set forth by independent claim 48, relates to a computer implemented method of identifying potential risk, the risk due to potential disruptions in material supply to a manufacturing facility, the method including identifying a set of components for an assembled product, identifying respective sets of sub-components, the respective sets of sub-components being combined to provide a corresponding component of the set of components, each of the respective sets of sub-components comprising sub-components, and identifying potential risk due to potential disruptions in continuity of material supply of any components from the set components and any sub-components of the respective sets of sub-components, the potential risk due to potential disruptions in continuity of material supply including risks associated with supplier power risk, geopolitical risk, capital cycle risk and innovation risk.

Feldman relates to managing supply chain risk. Feldman discloses identify which components are most critical to the assembly of a final product, in terms of placing the largest amount of revenue or profit at risk. The impact on profit and revenue of the failure to effectively deliver these critical products is then quantified. The revenue and profit distribution from the supply chain is characterized given a projected distribution supply uncertainty, taking into consideration that input products are only useful if all of the BOM components are present. The revenue at risk is then determined. From the set of possible final products that can be produced, the portfolio of final products with the best risk-return characteristics are determined.

When discussing Feldman, the Examiner set forth:

Feldman et al. does not expressly disclose innovation risks or determining a set of sub-components for the set of components and combining the set of components and the set of sub-components.

Hendrick et al. discloses:

determining a set of sub-components for the set of components (See pages 228-9 and page 231, figure 11-3 wherein subcomponents and subassemblies are determined); and

combining the set of components and the set of sub-components (see page 230-232, which discuss building a bill of materials and product structure trees by combining this information; (Office action dated July 25, 2007, Page 7.)

Hendrick relates to material requirements planning (MRP) in the context of production management. Hendrick discloses bills of materials and product structure trees. (See e.g.,

Hendrick p. 230, 231 and Figure 11-3.) Hendrick further discloses requirements of a data base that is used for material requirements planning. However, neither Feldman or Hendrick disclose or suggest identifying potential risk due to potential disruptions in material supply of components and sub-components, as required by claims 2 and 48.

Feldman and Hendrick, taken alone or in combination, do not teach or suggest a computer implemented method of identifying potential risk due to potential disruptions in material supply to a manufacturing facility where the method includes identifying *potential risk* due to *potential disruptions in material supply* of a component from the set components and *the set of sub-components* much less where the potential risk due to potential disruptions in continuity of material supply includes *risks associated with geopolitical risk, capital cycle risk and innovation risk*, all as required by claim 2. Accordingly, claim 2 is allowable over Feldman and Hendrick. Claims 3 - 16 depend from claim 2 and are allowable for at least this reason.

Feldman and Hendrick, taken alone or in combination, do not teach or suggest a computer implemented method of identifying potential risk, the risk due to potential disruptions in material supply to a manufacturing facility where the method includes *identifying respective sets of sub-components*, the respective sets of sub-components being combined to provide a corresponding component of the set of components, each of the respective sets of sub-components comprising sub-components, and identifying potential risk due to potential disruptions in continuity of material supply *of any components from the set components and any sub-components of the respective sets of sub-components*, much less where the potential risk due to potential disruptions in continuity of material supply includes *risks associated with supplier power risk, geopolitical risk, capital cycle risk and innovation risk*, all as required by new claim 48. Accordingly, claim 48 is allowable over Feldman and Hendrick.

### CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned.

The Commissioner is authorized to deduct any additional fees which may be necessary and to credit any overpayment to Deposit Account No. 502264.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on October 24, 2007.

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Respectfully submitted,

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